

## STRINGED INSTRUMENT CASE

### BACKGROUND OF THE INVENTION

#### Field of the Invention

This invention relates to stringed instrument cases for storing various types of stringed instruments having different shapes and different lengths.

#### Description of the Related Art

Conventionally, there exist various types of stringed instruments, wherein electric guitars in particular have a relatively great degree of freedom in design compared with other stringed instruments; therefore, they may have different body shapes, different sizes, and different lengths of necks. For this reason, it is necessary for manufacturers to produce various types of stringed instrument cases specifically suited to different types of stringed instruments.

As described above, manufacturers must design and produce various types of cases specifically suited to different types of electric guitars having different shapes, different sizes, and different lengths. This noticeably increases the number of different designs of cases, which causes difficulties in manufacture, maintenance, and management. That is, there is a problem in that the product cost, distribution cost, and stock control cost are increased.

In the case of stringed instrument cases whose inside spaces are not partitioned, it is necessary to additionally arrange packing in spaces between the case body and the electric guitar to prevent the electric guitar from moving unexpectedly during transportation.

In addition, a user may buy a new electric guitar to replace an old electric guitar, which was originally stored in an old case. If the new electric guitar differs

from the old electric guitar in shape, size, and length, the user cannot use the old case in order to store the new electric guitar. Hence, the user should buy a new case specifically suited to the new electric guitar, which may increase the economic burdens on the user.

#### SUMMARY OF THE INVENTION

It is an object of the invention to provide a stringed instrument case that can be commonly used for various types of stringed instrument having different shapes, different sizes, and different lengths, whereby it is possible to noticeably reduce the manufacturing cost and distribution cost therefor.

A stringed instrument case of this invention comprises a case body and a cover, wherein an internal member made of a foaming resin is arranged inside of the case body to form a storage hollow allowing a stringed instrument (e.g., an electric guitar) to be stored therein. A body fixing member for fixing a body of the stringed instrument at a prescribed position is arranged and adequately positioned in the storage hollow in response to the size of the body, and a neck fixing member having a plurality of neck reception portions each capable of receiving a tip end portion of a neck of the stringed instrument is arranged in the storage hollow at a prescribed distance from the body fixing member, wherein the neck fixing member can be adjusted in position in the longitudinal direction of the case body.

Due to the formation of neck reception portions on the upper surface of the neck fixing member, it is possible to arrange any types of stringed instruments having different lengths in a slanted manner because each of the neck reception portions can safely receive the tip end portion of the neck of the stringed instrument.

Thus, the stringed instrument case of this invention can be accommodated to

any types of stringed instruments having different shapes, different sizes, and different lengths. Therefore, it is possible to reduce the number of types of cases specifically suited to different types and different models of stringed instruments; thus, it is possible to reduce the product cost, distribution cost, and stock control cost therefor.

#### BRIEF DESCRIPTION OF THE DRAWINGS

These and other objects, aspects, and embodiments of the present invention will be described in more detail with reference to the following drawing.

Figure 1 is a perspective view showing the interior and exterior appearance of a stringed instrument case in accordance with a preferred embodiment of the invention.

#### DESCRIPTION OF THE PREFERRED EMBODIMENT

This invention will be described in further detail by way of an example with reference to the accompanying drawing.

Figure 1 is a perspective view showing the interior and exterior appearance of a stringed instrument in accordance with a preferred embodiment of the invention, wherein reference numeral 1 designates a solid-type electric guitar, and 2 designates a stringed instrument case for storing the electric guitar 1 therein.

The electric guitar 1 comprises a solid body 3, a neck 4, six steel strings 5, a bridge 6, pickups 7 for converting vibrations of the strings 5 into electric signals, a tailpiece 8, controls (or dials) 9 for adjusting tone color, tone volume, and the like, tuning pegs 10, and a head 11.

In order to accommodate various types of electric guitars having different shapes, different sizes, and different lengths, the stringed instrument case 2 is basically designed and produced to suit dimensions of the largest model of an electric guitar.

In brief, the stringed instrument case 2 comprises a case body 12 and a cover 13.

The case body 12 as a whole is formed in a relatively shallow and rectangular box-like shape whose upper portion is opened, wherein the sides of bottom boards 12a are respectively encompassed by long side boards 12b and short side boards 12c as well as short side boards 12d and 12e. The cover 13 is attached to the upper end portion of the long side board 12b, which may be directed downwards when a user holds the stringed instrument case 2 by hand during transportation, via hinges (not shown) such that it can be freely closed and opened. In addition, a handle 16 and locks 17 are arranged on an exterior surface of the long side board 12c that may be directed upwards during transportation. The case body 12 may be normally produced by injection molding using a synthetic resin. Of course, it is possible to produce it by using other materials such as aluminum, woods, and recycling papers. When stringed instrument cases are produced by molding using recycling papers, it is possible to produce them with relatively small weights, and it is possible to recycle them at a relatively low cost.

The cover 13 is formed in a rectangular box-like shape whose size is approximately identical to that of the case body 12 and whose lower portion is opened.

An interior member 20 composed of a foam resin such as urethane foam is embedded inside of the case body 12. A storage hollow 21 is formed to allow the largest model of an electric guitar whose size and length are maximal among existing models of electric guitars to be stored therein. The storage hollow 21 is formed in the interior member 20 with a width W of approximately 320 mm wide and is elongated substantially in the overall length of the internal member 20 embedded in the case body 12. The space of the storage hollow 21 is partitioned into three sections, namely, a first hollow 21A, a second hollow 21B, and a third hollow 21c, by using two

partition members, namely, a body fixing member 23 for fixedly holding the front end portion of the body 3 of the electric guitar 1 and a neck fixing member 24 for fixedly holding the tip end portion of the neck 4 of the electric guitar 1.

The first hollow 21A is arranged at a rightmost position of the case body 12 shown in Figure 1 in order to store the body 3 of the electric guitar 1, wherein a terminal wall 25 proximate to the short side board 12e is formed in a hemispherical shape approximately matching a tail shape of the body 3 of the electric guitar 1, and wherein a length L measured between the terminal wall 25 and the neck fixing member 24 is approximately set to 750 mm or so.

The second hollow 21B for storing the neck 4 of the electric guitar 1 is arranged between the body fixing member 23 and the neck fixing member 24.

The third hollow 21C for storing the head 11 of the electric guitar 1 is arranged between the short side board 12d and the neck fixing member 24.

The interior member 21 is encompassed by frame walls 26 including long-side frame walls 26a and 26b, which are arranged opposite each other, wherein plates 27 for allowing the body fixing member 24 and the neck fixing member 24 to be adjusted in position in the longitudinal direction of the case body 12 are fixed onto the upper surfaces of the long-side frame walls 26a and 26b. Each of the plates 27 is made of a slender metal plate having prescribed dimensions in which the width thereof is approximately identical to the width of each of the long-side frame walls 26a and 26b, and the length thereof is set to 400 mm or so. Herein, each of them is fixed at a position having a prescribed distance of about 350 mm apart from the top position of the terminal wall 25, having a circular arc shape, of the first hollow 21A, wherein internal screws (or female screws) 28 are arranged in line upon a prescribed pitch of 10 mm or so therebetween.

The body fixing member 23 is made of a prescribed material such as wood and synthetic resin, and it is formed in a square rod-like shape whose length is approximately identical to the width W of the storage hollow 21, wherein an elongated concave 30 for accommodating the base end portion of the neck 4 of the electric guitar 1 is formed on the upper surface of the body fixing member 23, while fixing plates 31 are fixed to both ends of the body fixing member 23. The depth of the elongated concave 30 is slightly greater than the thickness of the base end portion of the neck 4. Tip ends of the fixing plates 31 are slightly projected from tip ends of the body fixing member 23 such that they partially overlap the plates 27 respectively, wherein a pair of tapped holes 33, which are arranged apart from each other with the same pitch between adjacent internally threaded holes 28 of the plate 27 therebetween, are formed on each of the fixing plates 31. That is, the body fixing member 23 can be adjusted in position when moved by 10mm-pitch in the longitudinal direction of the case body 12 in response to the height of the body 3 of the electric guitar 1. When externally threaded screws (or male screws) 34 are inserted into the tapped holes 33 and the internally threaded holes 28 in turn, it is possible to fix the body fixing member 23 relative to the plates 27 arranged on the long-side frame walls 26a and 26b of the storage hollow 21.

In order to fix the body fixing member 23 in position, the base portion of the body 3 of the electric guitar 1 is pressed by the body fixing member 23, wherein the tail portion of the body 3 is fixed while being pressed against the terminal wall 25 of the first hollow 21A. Thus, it is possible to reliably prevent the electric guitar 1 from moving unexpectedly in the longitudinal direction thereof. Incidentally, it is possible to use various types of screws having different shapes and different heads as the externally threaded screws 34. For example, the externally threaded screws 34 are

designed as ones that can be tightened and loosened using coins and the like. The body fixing member 23 is arranged perpendicular to the longitudinal direction of the case body 12.

Similar to the body fixing member 23, the neck fixing member 24 is made of a prescribed material such as wood and synthetic resin, and it is formed in a square rod-like shape, wherein four neck reception portions 36 each formed like a concave are arranged adjacent to each other on the upper surface of the neck fixing member 24 in the longitudinal direction. Specifically, each of the neck reception portions 36 is used to fix the tip end of the neck 4 in a prescribed position, wherein each of them is approximate to each other in sectional shape thereof and is roughly formed in a semicircular sectional shape or a semi-elliptical sectional shape. The neck fixing member 24 can be freely arranged in a desired position in the longitudinal direction of the storage hollow 21 in the case body 12, wherein both ends thereof can be fixedly screwed to the plates 27 respectively.

The reason why a plurality of neck reception portions 36 are formed on the upper surface of the neck fixing member 24 is to reduce the overall size of the stringed instrument case 2 by making it possible to store slanted in the longitudinal direction an electric guitar 1 having a relatively long length, in the case body 12. That is, when an electric guitar 1 is stored in the case body 12 if the longitudinal direction of the case body 12 is made to substantially match the longitudinal direction of the electric guitar 1, the overall length of the case body 12 must be made longer to allow the largest model of electric guitar, whose length is maximal among existing models of electric guitars, to be stored in the case body 12. This is not preferable because the overall size of the stringed instrument case 2 must be greatly increased.

For this reason, this invention is characterized in that a prescribed room is

provided for the width W of the storage hollow 21, and a plurality of neck reception portions 36 are arranged on the upper surface of the neck fixing member 24, whereby each of electric guitars having different lengths can be safely stored in the storage hollow 21 while being adequately slanted in position.

The aforementioned stringed instrument case 2 can be commonly accommodated to various types of electric guitars having different shapes, different sizes, and different lengths. Therefore, it is possible to reduce the number of types of cases suited various types of stringed instruments. Since the stringed instrument case of this invention is easily manufactured and controlled in stock management, it is possible to reduce the product cost, distribution cost, stock control cost, and the like.

In addition, the stringed instrument case 2 can be made to easily accommodate different models of electric guitars having different lengths because the body fixing member 23 firmly fixes the tip end portion of the body 3 and the base end portion of the neck 4 of the electric guitar 1 in a prescribed position while the neck fixing member 24 firmly fixes the tip end portion of the neck 4; therefore, it is possible to reliably prevent the electric guitar 1 from moving unexpectedly in the stringed instrument case 2 in the longitudinal direction, which may substantially match the direction for stretching the strings 5. That is, it is unnecessary to arrange packing in the stringed instrument case 2; hence, there is no possibility that the electric guitar 1 will move unexpectedly and be partially damaged while in the stringed instrument case 2 during transportation.

Furthermore, the stringed instrument case 2 of this invention allows the electric guitar 1 to be stored therein in a slanted manner in response to the length of the electric guitar 1. Hence, it is possible to reduce the overall length of the stringed instrument case 2.

When the user buys a new electric guitar to replace an old electric guitar, the user can continuously use the stringed instrument case 2 previously used for the old electric guitar. Hence, it is possible to noticeably reduce the economic burden on the user.

The aforementioned embodiment is described in conjunction with a stringed instrument case specifically adapted to a solid-type electric guitar, but this invention is not necessarily limited to that embodiment. That is, the stringed instrument case 2 can be easily adapted to semi-acoustic type electric guitars by enlarging the depth of the case body 12.

As described heretofore, this invention has a variety of technical features and effects, which will be described below.

- (1) A stringed instrument case of this invention is characterized by arranging partition members that can be easily adjusted in positions when moved in a storage hollow of a case body; therefore, it is possible to reliably store any type of electric guitars having different shapes, different sizes, and different lengths without causing unexpected movement during transportation and the like. Thus, it is possible to reduce the number of types of cases suited to various types of stringed instruments; and it is possible to reduce the product cost, distribution cost, and stock control cost therefor.
- (2) The stringed instrument case of this invention allows a stringed instrument to be safely stored therein in a slanted manner in accordance with the length of the stringed instrument. Therefore, it is possible to noticeably reduce the overall size of the stringed instrument case.

As this invention may be embodied in several forms without departing from the spirit or essential characteristics thereof, the present embodiment is therefore

illustrative and not restrictive, since the scope of the invention is defined by the appended claims rather than by the description preceding them, and all changes that fall within metes and bounds of the claims, or equivalents of such metes and bounds are therefore intended to be embraced by the claims.